Amendments to the Claims:

Claims 1-18, as originally filed in this application, are reproduced below:

1. (original) A system for use in a tape drive, the system comprising:

a tape head accessing a tape, the tape head generating read signals based on a spatial relationship between the tape head and the tape;

a plurality of pulse shaping filters, each pulse shaping filter receiving the read signals and producing pulse-shaped signals, each pulse shaping filter having at least one filter parameter based on a possible tape head-to-tape spatial relationship, the at least one filter parameter unique to that filter; and

a signal decoder receiving the plurality of pulse-shaped signals and producing decoded output signals, the signal decoder comprising

(a) a plurality of viterbi processors, each viterbi processor accepting pulse-shaped signals from one of the plurality of pulse shaping filters, and

(b) at least one low density parity check decoder producing the decoded output signals based on the output from one of the plurality of viterbi processors.

2. (original) The system of claim 1 wherein each viterbi processor comprises a soft output viterbi processor.

3. (original) The system of claim 1 wherein the at least one low density parity check decoder is one low density parity check decoder having a low density parity check decoder input, the signal decoder further comprising decoder logic operative to select one of the plurality of viterbi processor outputs as the low density parity check decoder input.

4. (original) The system of claim 1 wherein the at least one low density parity check decoder is a plurality of low density parity check decoders, each

low density parity check decoder having a low density parity check decoder input in communication with one of the plurality of viterbi processor outputs, the signal decoder further comprising decoder logic operative to select output from one of the plurality of low density parity check decoders as the decoded output signals.

5. (original) The system of claim 1 wherein each viterbi processor generates a series of probabilities.

6. (original) The system of claim 5 further comprising control logic selecting output from one of the plurality of viterbi processors.

7. (original) The system of claim 6 wherein the control logic bases output selection on a distribution of the probabilities.

8. (original) The system of claim 6 wherein the control logic bases output selection on a standard deviation of the probabilities.

9. (original) The system of claim 6 wherein each series of probabilities contains at least one intermediate value and wherein the control logic bases output selection on at least one number of indeterminate values.

10. (original) The system of claim 6 wherein the control logic bases output selection on at least one viterbi metric.

11. (original) A method of retrieving data from tape comprising;

reading the tape with a tape head to generate a read signal, the tape head having a spatial relationship with the tape as the tape passes the tape head, the spatial relationship described by at least one variable spatial parameter;

filtering the read signal with a set of parallel filters, each filter receiving the read signal and producing a filtered signal, each filter based on at least one unique value for the at least one variable spatial parameter;

processing each filtered signal with a viterbi algorithm; and

generating a decoded output signal based on selecting and parity checking one of the viterbi processed filtered signals.

12. (original) The method of claim 11 wherein generating a decoded output signal comprises:

selecting one of the viterbi processed filtered signals; and

parity checking the selected viterbi processed filtered signals.

13. (original) The method of claim 11 wherein generating a decoded output signal comprises:

low density parity checking each of the viterbi processed filtered signals; and

selecting one of the low density parity checked viterbi processed filtered signals.

14. (original) The method of claim 11 wherein processing each filtered signal with a viterbi algorithm generates a series of probabilities.

15. (original) The method of claim 14 wherein generating a decoded output is based on a distribution of the series of probabilities.

16. (original) The method of claim 14 wherein generating a decoded output is based on standard deviation of the series of probabilities.

17. (original) The method of claim 14 wherein generating a decoded output is based on at least one number of indeterminate values in the series of probabilities.

18. (original) The method of claim 14 wherein generating a decoded output is based on viterbi metrics.